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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/682,392	10/09/2003	Puthukode G. Ramachandran	AUS920030734US1	8364

54105 7590 11/03/2006

DUKE W. YEE
YEE & ASSOCIATES, P.C.
P.O. BOX 802333
DALLAS, TX 75380

EXAMINER

GUZMAN, APRIL S

ART UNIT PAPER NUMBER

2618

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/682,392

Applicant(s)

RAMACHANDRAN, PUTHUKODE
G.

Examiner

April S. Guzman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 13-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/09/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed September 6, 2006 have been fully considered but they are not persuasive.

Regarding claim 1, the Applicant argues that Lee et al. does not disclose the feature of a transceiver located inside the housing, wherein the transceiver sends and receives data from a wireless connection.

The Examiner respectfully disagrees with Applicant's arguments because Lee et al. disclose a PCMCIA wireless network card which inherently comprises a circuit within the wireless network card. The wireless network card is provided with indication members that may operate corresponding to the strength of the local RF signal so that the user may directly learn the strength of the local RF signal easily, rapidly and instantaneously in a direct viewing manner, so as to decide whether to transmit or receive the data or not, or to take other procedures. The task of deciding whether to transmit or receive data or not in accordance with the indication of the strength of the local RF signal implies that the circuit located within the wireless network card encompasses a transceiver to transmit or receive the data. See Lee et al., paragraph [0006] and [0024]. For the reasons above the Examiner's rejection in light of Lee et al. is maintained.

Regarding claims 9 and 17, the Applicant argues that since claim 1 is representative of claims 9 and 17, the same distinctions between Lee et al. and the claimed invention in claim 1 applies to claims 9 and 17 as well. The Applicant argues

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that Lee et al. does not disclose the feature of a transceiver located inside the housing, wherein the transceiver sends and receives data from a wireless connection. However, claims 9 claims "A method in a wireless network card for indicating a signal strength, the method comprising: sending data to a network from the wireless network card; in response to receiving a response to the data, determining the signal strength; and displaying the signal strength on a display device located on an exterior of the wireless network card." and claim 17 claims "A computer program product in a computer readable medium for indicating a signal strength, the computer program product comprising: first instructions for sending data to a network from the wireless network card; second instructions, in response to receiving a response to the data, for determining the signal strength; and third instructions for displaying the signal strength on a display device located on an exterior of the wireless network card." Neither claim 9 nor claim 17 declares a transceiver located inside the housing, wherein the transceiver sends and receives data from a wireless connection. Therefore, Applicant's argument to claims 9 and 17 are now moot.

Regarding the rejection of claims 2, 7, 10 and 18. The Applicant's arguments are not persuasive in view of the sustained rejection of claim 1 explained above. The Examiner also maintains that her rejection of claims 2, 7, 10, and 18 is proper.

Regarding the rejection of claims 3-4, 11, and 19. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some

teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the liquid crystal display displays a field strength signal, wherein the field strength signal is displayed in five stages, which means that the greater number of these segments being lit, the stronger the field strength signal. See Ishikura, column 4 lines 47-64 and Figure 5 wherein the segments are in the form of bars.

Regarding the rejection of claims 5-6, 12, and 20. The Applicant's arguments are not persuasive in view of the sustained rejection of claim 1 explained above. The Examiner also maintains that her rejection of claims 5-6, 12, and 20 is proper.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the sound generator (noise source 58) to insert an audible indication in the system as the received signal strength varies. The audible indication can be in a manner that a digital mobile unit mimics the behavior of an analog mobile unit which is

moving out of range, in order to provide a readily identifiable indication to the user that the wireless handset is about to go out of range or that communication is about to be lost. See Coverdale et al. Abstract.

Regarding claim 8, the Applicant argues that Kannis does not teach, suggest, or give any incentive to independently power a wireless network card.

The Examiner respectfully disagrees with Applicant's arguments because Kannis discloses in one embodiment, the communications apparatus comprises a portable power source, such as one of more batteries. In another embodiment, the communication apparatus comprises a connector, such as a power socket, for connecting to an external power source. Therefore, Kannis clearly suggests powering the communication apparatus independently from the computing device. For the reasons above the Examiner's rejection in light of Kannis is maintained.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1-2, 7, 9-10, and 17-18** are rejected under 35 U.S.C. 102(e) as being anticipated by **Lee et al. (U.S. Patent Application Publication # US 2004/0203549)**.

Consider **claim 1**, Lee et al. clearly show and disclose a wireless network apparatus (wireless communication device) (Abstract, Figure 1, Figure 3 wireless network card 10, and [0007], [0023]-[0024]) comprising:

a housing (it is inherent that the wireless network card 10 includes a housing in itself, see Figure 1, and [0023]);

a bus interface (first judgement signal 321 and second judgement signal 322) located inside the housing, wherein the bus interface provides a connection to a data processing system (judgement device 32) (Figure 3, [0042], and [0044]);

a transceiver (wireless network card 10) located inside the housing, wherein the transceiver sends and receives data from a wireless connection (Figure 3, [0024], [0043], and [0045]);

a data buffer (buffer 31) located inside the housing and being connected to the bus interface and the transceiver, wherein the data buffer holds data for transfer between the bus interface and the transceiver (Figure 3, and [0042]-[0045]);

a display device (indication members 11) located on an exterior of the housing, wherein the display device is located on the exterior of the wireless network apparatus (wireless network card 10) in a location (indication zone 111) for viewing by a human user (Figure 1, [0016], and [0024]-[0025]); and

a control unit (drive circuit 30) located within the housing, wherein the control unit controls the transfer of data through the data buffer (drive circuit 30 includes a buffer 31 which includes a first input port 311 for inputting the control value, second input port 312 for inputting an enabling signal, and an output port 313 for connecting to the indication

members 11), identifies a signal strength for the wireless connection (drive circuit 30 further includes a judgement device 32 which may output a potential signal to function as an enabling signal 323 so as to drive the buffer 31), and displays the signal strength on the display device (drive circuit 30 operated to decide if one, some or all of the indication members 11 are to be lighted) ([0042], and [0044]-[0045]).

Consider **claim 2, as applied to claim 1 above**, Lee et al. clearly show and disclose the display device (indication members 11) as a set of light emitting diodes (LED) arranged in an array (Figure 1, [0024]-[0025], and [0042]).

Consider **claim 7, as applied to claim 1 above**, Lee et al. clearly disclose the wireless network apparatus (wireless communication device) is a wireless network card (wireless network card 10) (Figure 1, [0017], and [0023]-[0024]).

Consider **claim 9**, Lee et al. clearly show and disclose a method in a wireless network card (wireless network card 10) for indicating a signal strength (Figure 2, [0011], and [0027]), the method comprising:

sending data to a network from the wireless network card (read as initializing the wireless network card, and allocating multiple I/O address spaces; querying the information records of the medium access control (MAC) layer of the PCMCIA interface, to obtain a signal strength value) (Figure 2, [0012]-[0013], and [0029]-[0030]);

in response to receiving a response to the data, determining the signal strength (determining a control value according to the signal strength value) (Figure 2, [0014], [0031], and [0034]); and

displaying the signal strength on a display device on an exterior of the wireless network card (sending the control value to the multiple I/O address spaces, to control operation of the multiple indication members 11 wherein the indication members 11 are located on the exterior of the wireless network card 10) (Figure 2, [0015], and [0032]).

Consider **claim 10, as applied to claim 9 above**, Lee et al. clearly show and disclose the display device (indication member 11) is an array of light emitting diodes (LED1, LED2, LED3, and LED4) (multiple properly arranged indication members 11 wherein the indication members 11 are disclosed as LEDs) (Figure 1, Figure 3, [0024]-[0025], and [0042]).

Consider **claim 17**, Lee et al. disclose a method for indicating a signal strength which is inherently composed in a computer program product in a computer readable medium (wireless network card 10), the computer program product comprising:

first instructions for sending data to a network from the wireless network card (initializing the wireless network card, and allocating multiples I/O address spaces; querying the information records of the medium access control (MAC) layer of the PCMCIA interface, to obtain a signal strength value) (Figure 2, [0012]-[0013], and [0029]-[0030]);

second instructions for determining the signal strength (determining a control value according to the signal strength value) in response to receiving a response to the data (Figure 2, [0014], [0031], and [0034]); and

third instructions for displaying the signal strength on a display device located on an exterior of the wireless network card (sending the control value to the multiple I/O

address spaces, to control operation of the multiple indication members 11 wherein the indication members 11 are located on the exterior of the wireless network card 10) (Figure 2, [0015], and [0032]).

Consider **claim 18, as applied to claim 17 above**, Lee et al. clearly show and disclose the display device (indication member 11) is an array of light emitting diodes (LED1, LED2, LED3, and LED4) (multiple properly arranged indication members 11 wherein the indication members 11 are disclosed as LEDs) (Figure 1, Figure 3, [0024]-[0025], and [0042]).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. **Claims 3-4, 11, and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lee et al. (U.S. Patent Application Publication # US 2004/0203549)** in view of **Ishikura (U.S. Patent # 5,239,684)**.

Consider **claims 3, 11, and 19** as applied to **claims 1, 9, and 17** respectively, Lee et al. disclose a display device (indication members 11).

However, Lee et al. fail to disclose that the display device is a liquid crystal display (LCD).

In the same field of endeavor, Ishikura discloses a display device (display unit 118) constituted by an LCD driver 118a and a liquid crystal display 118b (Figure 4; column 1 lines 23-25, column 1 lines 53-54, lines 61-62; and column 4 lines 47-49).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Ishikura with the teachings for Lee et al. for the purpose of providing an alternate form of the display device to indicate signal strength.

Consider **claim 4, as applied to claim 1 above**, Lee et al. disclose that the signal strength is displayed on the display device (indication members 11).

However, Lee et al. fail to disclose that the signal strength is displayed as a bar on the display device.

In the same field of endeavor, Ishikura shows and discloses the signal strength (field strength signal) is displayed in five stages, and the shadowed portions indicate bars (segments) being lit, which means that the greater number of bars (segments) being lit, the stronger the signal (field strength signal) (Figure 5, column 4 lines 55-64).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate bars (segments) displayed on a display device as taught by Ishikura into the teachings of Lee et al. for the purpose of indicating the signal strength for viewing by a human user in an alternate form using bars.

6. **Claims 5-6, 12, and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lee et al. (U.S. Patent Application Publication # US 2004/0203549)** in view of **Coverdale et al. (U.S. Patent # 5,809,414)**.

Consider **claim 5, as applied to claim 1 above**, Lee et al. show and disclose a control unit (drive circuit 30) ([0042], and [0044]-[0045]).

However, Lee et al. fail to disclose a sound generator unit, wherein the control unit selectively generates a sound using the sound generator unit based on the signal strength.

In the same field of endeavor, Coverdale et al. disclose a sound generator (noise source 58), wherein the control unit (control module 60) selectively generates a sound using the sound generator unit (noise source 58) based on the signal strength (column 3 lines 30-37, and column 4 lines 22-28).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the sound generator (noise source 58) to generate a sound to indicate signal strength as taught by Coverdale et al. into the teachings of Lee et al. for the purpose of indicating signal strength audibly.

Consider **claim 6, as applied to claim 1 above**, Lee et al. show and disclose a control unit (drive circuit 30) ([0042], and [0044]-[0045]).

However, Lee et al. fail to disclose that the control unit generates a sound if the signal strength falls below a threshold.

In the same field of endeavor, Coverdale et al. disclose a control unit (control module 60) that generates sound if the signal strength falls below a threshold (out of range, Threshold 1, and Threshold 2). To provide the out-of-range alerting indication, Threshold 2 is chosen as the value of RSSI where the signal strength begins to degrade rapidly. Threshold 1 is chosen as the value of the received signal strength at which the warning or indication should start (column 3 lines 30-37, column 3 lines 53-57, column 4 line 67-column 5 line 2, and column 4 lines 22-28).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Coverdale et al. with the teachings of Lee et al. for the purpose of indicating signal strength audibly by generating a sound, more specifically, when the signal strength falls below a threshold such as moving out of communication range.

Consider **claim 12, as applied to claim 9 above**, Lee et al. disclose a method for indicating signal strength for a wireless network card (Figure 2, [0011], and [0027]).

However, Lee et al. fail to disclose the method for indicating signal strength encompasses generating a sound indication in response to the signal strength falling below a threshold level.

In the same field of endeavor, Coverdale et al. disclose a sound generator (noise source 58) that generates a sound if the signal strength falls below a threshold (out of

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range, Threshold 1, and Threshold 2) (column 3 lines 30-37, column 3 lines 53-57, and column 4 lines 22-28).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Coverdale et al. with the teachings of Lee et al. for the purpose of indicating signal strength audibly by generating a sound, more specifically, when the signal strength falls below a threshold such as moving out of communication range.

Consider **claim 20, as applied to claim 17**, Lee et al. disclose a method for indicating a signal strength which is inherently composed in a computer program product in a computer readable medium (wireless network card 10) (Abstract, [0011]-[0015], [0027]-[0032]).

However, Lee et al. fail to disclose fourth instructions for generating a sound indication in response to the signal strength falling below a threshold level.

In the same field of endeavor, Coverdale et al. disclose a method for providing a sound indication (audible indication) when the signal strength falls below a threshold level (moving out of communication range) where the fourth instructions generate a sound indication (noise source 58) in response to the signal falling below a threshold level (out-of range, Threshold 1, and Threshold 2) (column 2 lines 37-40).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the fourth instruction for generating a sound indication as taught by Coverdale et al. with the teachings of Lee et al. for the

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purpose of indicating signal strength audibly by generating a sound, more specifically, when the signal strength falls below a threshold.

7. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Lee et al. (U.S. Patent Application Publication # US 2004/0203549)** in view of **Kannis (WO 01/48612 A1)**.

Consider **claim 8, as applied to claim 1 above**, Lee et al. disclose that a data processing system (notebook computer) is used to power the wireless network apparatus (wireless network card 10) when the wireless network apparatus is connected to the data processing system ([0004]).

However, Lee et al. fail to disclose that power can be supplied to the wireless network apparatus (wireless network card 10) with the use of a battery located within the housing that can be used when power is unavailable from a data processing system.

In the same field of endeavor, Kannis discloses that a communications apparatus comprises a portable power source, such as one or more batteries (page 3 lines 30-33, and page 6 lines 4-7).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate one or more batteries within the wireless network apparatus as taught by Kannis into the teachings of Lee et al. for the purpose of including a portable power supply to supply independent power.

8. **Claims 21-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lee et al. (U.S. Patent Application Publication # 2004/0203549)** in view of **McCune, Jr. (U.S. Patent # 6,850,736)**.

Consider **claim 21**, Lee et al. show and disclose clearly show and disclose a wireless network apparatus (wireless communication device) (Abstract, Figure 1, Figure 3 wireless network card 10, and [0007], [0023]-[0024]) comprising:

a housing (it is inherent that the wireless network card 10 includes a housing in itself, see Figure 1, and [0023]);

a bus interface (first judgement signal 321 and second judgement signal 322) located inside the housing, wherein the bus interface provides a connection to a data processing system (judgement device 32) (Figure 3, [0042], and [0044]);

a transceiver (implicit within the wireless network card 10) located inside the housing, wherein the transceiver sends and receives data from a wireless connection (Figure 3, [0024], [0043], and [0045]);

a data buffer (buffer 31) located inside the housing and being connected to the bus interface and the transceiver, wherein the data buffer holds data for transfer between the bus interface and the transceiver (Figure 3, and [0042]-[0045]);

a display device (indication members 11) located on an exterior of the housing, wherein the display device is located on the exterior of the wireless network apparatus (wireless network card 10) in a location (indication zone 111) for viewing by a human user (Figure 1, [0016], and [0024]-[0025]); and

a control unit (drive circuit 30) located within the housing, wherein the control unit controls the transfer of data through the data buffer (drive circuit 30 includes a buffer 31 which includes a first input port 311 for inputting the control value, second input port 312 for inputting an enabling signal, and an output port 313 for connecting to the indication members 11), identifies a signal strength for the wireless connection (drive circuit 30 further includes a judgement device 32 which may output a potential signal to function as an enabling signal 323 so as to drive the buffer 31), and displays the signal strength on the display device (drive circuit 30 operated to decide if one, some or all of the indication members 11 are to be lighted) ([0042], and [0044]-[0045]).

However, Lee et al. fail to disclose that the control unit calculates the signal strength for the wireless connection using a computer program product in a recordable type medium.

In the related art, McCune, Jr. shows and discloses an received signal quality indicator (RSQI) apparatus 135 includes a circuit for measuring one or more characteristics of the received signal 140, a comparator 145 for comparing the signal characteristic to a predetermined value, a computer program or program embedded in a programmable read-only-memory (PROM 150), a processor 155 for executing the program and an indicator 160 for indicating to the user the signal quality (Figure 3, and column 5 lines 64-67 through column 6 lines 1-4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of McCune, Jr. into the teachings of Lee et al. for the purpose of integrating a processor that performs the

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measuring function and serves as the comparator thereby enabling existing designs to be easily modified to implement the RSQI apparatus.

Consider **claim 22, as applied to claim 21 above**; and **claim 23, as applied to claim 21 above**, McCune, Jr. further teaches the indicator 160 is a display 200 capable of visually indicating signal quality information to the user. The display 200 generally includes a bar graph 205 consisting of about three to about six display characters 210 and is implemented using liquid crystal or light-emitting diode technology (Figure 4, and column 6 lines 13-22).

Consider **claim 24, as applied to claim 21 above**, McCune, Jr. further teaches the indicator 160 may either be an audible indicator in which an audible tone changes in volume or frequency to indicate signal quality.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to April S. Guzman whose telephone number is 571-270-1101. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

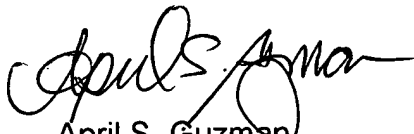
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Status information for unpublished applications is available through Private PAIR only.

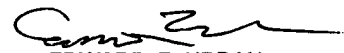
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April S. Guzman
A.S.G/asg



EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2000